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EXAMINER	
THOMPSON, KENNETH L	

ART UNIT	PAPER NUMBER
3672	

DATE MAILED: 02/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/730,799	MILBERGER ET AL.	
	Examiner	Art Unit	
	Kenn Thompson	3672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 August 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-57* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *30-36 and 43-48* is/are allowed.

6)☒ Claim(s) *1-10,12,14-21,23-29,37-39,42 and 49-57* is/are rejected.

7)☒ Claim(s) *11,13,22,40 and 41* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *2,6,8/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

Claims 10, 12, are objected to because of the following informalities:

The recitation "the first annulus passageway" in claim 10, line 3 should be changed to "a first annulus passageway".

The recitation "the workover valve" in claim 12, line 7 should be changed to "a workover valve".

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, 5-10 and 12 are rejected under 35 U.S.C. 102(e) as being anticipated by Kent et al., U.S. 6,612,368.

Regarding claim 1, Kent et al. discloses a horizontal spool tree assembly (210) for controlling fluid flow through a production tubing string (120) within a well, the production tubing string defining a tubing annulus (122) surrounding the tubing string, and the tree assembly adapted for use with a workover string for fluid communication with the tree assembly. Kent et al. discloses a spool body (114a) defining a spool body central bore (116) for receiving a tubing

hanger (118) therein, and a spool body production passageway (128) extending laterally from the spool body central bore for fluid communication with a production line (124). Kent et al. discloses Kent et al. discloses the tubing hanger (118) within the spool body central bore and sealed (156) to the spool body. Kent et al. discloses the tubing hanger (118) adapted to support the production tubing string (120) therefrom, the tubing hanger having a tubing hanger production bore (124) for fluid communication with the production tubing string (120) and a tubing hanger production passageway (126) extending laterally from the tubing hanger production bore for fluid communication with the production passageway (128) in the spool body. Kent et al. discloses an annulus passageway (130,132,142) extending laterally through the spool body below the tubing hanger for fluid communication with the tubing annulus. Kent et al. discloses a first annulus valve (148) for controlling fluid flow between the tubing annulus and an annulus line (168); a second annulus valve (152) positioned downstream from the first annulus valve with respect to the tubing annulus for controlling fluid flow between the tubing annulus and the annulus line (168). Kent et al. discloses a workover flow path (142) in fluid communication with the annulus passageway and passing through the spool body, laterally into the tubing hanger, and upward (140) through the tubing hanger to the spool body central bore (116) above the tubing hanger, thereby providing fluid communication between the workover string and the tubing annulus. Kent et al. discloses a crossover flow line (212) in fluid communication with the annulus line (132) between the first (148) and second (152) annulus valves and the production line; and a crossover valve (214) positioned along the crossover flow line.

As to claim 2, Kent et al. discloses a production valve (144) positioned on the spool body for controlling fluid flow along the spool body production passageway (128).

As to claim 3, Kent et al. discloses the crossover flow line (212) is in communication with the production line (128) downstream from the production valve (144).

As to claim 5, Kent et al. discloses a first closure member (138) positioned within the tubing hanger production bore in the tubing hanger (col. 7, lines 5-9).

As to claim 6, Kent et al. discloses a second closure member (158) positioned above the tubing hanger (118) and the first closure member for isolating the spool body central bore between the first and second closure members.

As to claim 7, Kent et al. discloses another production valve (146) on a block connected to the spool body for controlling fluid flow along the production line.

As to claim 8, Kent et al. discloses a lower first seal (156) between the tubing hanger and the spool body; an intermediate second seal (134) between the tubing hanger and the spool body; a third upper seal (136) between the tubing hanger and the spool body; the workover flow path (142) into the tubing hanger being spaced between the first seal and the second seal, and the tubing hanger production passageway (126) being spaced between the second seal and third seal.

As to claim 9, Kent et al. discloses the second annulus valve (152) is positioned within a block connected to the spool body.

As to claim 10, Kent et al. discloses the first annulus valve (148) is positioned on the spool body for controlling fluid flow along the a first annulus passageway (130,132,142) through the spool body.

As to claim 12, Kent et al. discloses the a first closure member (138) positioned within the tubing hanger production bore in a tubing hanger, a second closure member (154) positioned within the tubing hanger production bore in the tubing hanger above the first closure member,

and a workover valve (312) positioned along the workover flow path for controlling fluid flow to the first annulus valve during a workover operation.

Claims 1 and 4 are rejected under 35 U.S.C. 102(e) as being anticipated by Hartmann, U.S. 6,659,181.

Regarding claim 1, Hartmann discloses a horizontal spool tree assembly (10) for controlling fluid flow through a production tubing string (22) within a well, the production tubing string defining a tubing annulus (24) surrounding the tubing string, and the tree assembly adapted for use with a workover string for fluid communication with the tree assembly. Hartmann discloses a spool body (14) defining a spool body central bore (16) for receiving a tubing hanger (18) therein, and a spool body production passageway (30) extending laterally from the spool body central bore for fluid communication with a production line (26). Hartmann discloses the tubing hanger within the spool body central bore and sealed (40,38,57) to the spool body, the tubing hanger adapted to support the production tubing string therefrom. Hartmann discloses the tubing hanger having a tubing hanger production bore (26) for fluid communication with the production tubing string (22) and a tubing hanger production passageway (28) extending laterally from the tubing hanger production bore for fluid communication with the production passageway (30) in the spool body. Hartmann discloses an annulus passageway (32,34,36) extending laterally through the spool body below the tubing hanger (18) for fluid communication with the tubing annulus (24). Hartmann discloses a first

annulus valve (48) for controlling fluid flow between the tubing annulus and an annulus line (34); a second annulus valve (52) positioned downstream from the first annulus valve with respect to the tubing annulus for controlling fluid flow between the tubing annulus and the annulus line. Hartmann discloses a workover flow path (36) in fluid communication with the annulus passageway and passing through the spool body, laterally into the tubing hanger, and upward through the tubing hanger (at 80) to the spool body central bore above the tubing hanger, thereby providing fluid communication between the workover string and the tubing annulus. Hartmann discloses a crossover flow line (at 50 opposite 34) in fluid communication with the annulus line between the first and second annulus valves and the production line (col. 4, lines 30-34); and a crossover valve (50) positioned along the crossover flow line.

As to claim 4, Hartmann discloses the workover flow path (36) extends through a lateral port in the tubing hanger spaced below the tubing hanger production passageway (28).

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 14-20, 49, 52, 54 and 56 are rejected under 35 U.S.C. 102(b) as being anticipated by Garnham et al., U.S. 5,992,527.

Regarding claim 14, Garnham et al. discloses in figures 1-3 a horizontal spool tree assembly for controlling fluid flow through a production tubing string (7) within a well, the production tubing string defining a tubing annulus (at 9) surrounding the tubing string, and the tree assembly adapted for use with a workover string for fluid communication with the tree assembly. Garnham et al. discloses a spool body (3,20) defining a spool body central bore for receiving a tubing hanger (10,6) therein, and a spool body production passageway (24) extending laterally from the spool body central bore for fluid communication with a production line (8). Garnham et al. discloses the tubing hanger within the spool body central bore and sealed (25,26) to the spool body, the tubing hanger adapted (at 6) to support the production tubing string therefrom. Garnham et al. discloses the tubing hanger having a tubing hanger production bore (11) for fluid communication with the production tubing string (7) and a tubing hanger production passageway (16) extending laterally from the tubing hanger production bore for fluid communication with the production passageway (24) in the spool body. Garnham et al. discloses an annulus passageway (9,12) extending from the tubing annulus upward through a portion of the tubing hanger and laterally through the tubing hanger into the spool body and to an annulus line; and an annulus valve (30,31) for controlling the fluid flow along the annulus passageway.

As to claim 15, Garnham et al. discloses a workover flow path (35) exterior of the spool body and in fluid communication with the annulus passageway (12,9) and extending through a lateral port (at 30) in the spool body (20) to the spool body central bore above the tubing hanger.

As to claim 16, Garnham et al. discloses a production valve (29) positioned on a block exterior of the spool body for controlling fluid flow along the production line.

As to claim 17, Garnham et al. discloses a crossover flow line (35) in fluid communication with the annulus line and the production line.

As to claim 18, Garnham et al. discloses a first closure member (13A) positioned within the tubing hanger production bore in the tubing hanger.

As to claim 19, Garnham et al. discloses a second closure member (72) positioned above the tubing hanger and the first closure member for isolating the spool body central bore between the first and second closure members.

As to claim 20, Garnham et al. discloses the annulus valve (30) is positioned on the spool body.

Regarding claim 49, Garnham et al. discloses in figures 1-3 a horizontal spool tree assembly for controlling fluid flow through a production tubing string (7) within a well, the production tubing string defining a tubing annulus (at 9) surrounding the tubing string, and the tree assembly adapted for use with a workover string for fluid communication with the tree assembly. Garnham et al. discloses a spool body (3,20) defining a spool body central bore for receiving a tubing hanger (6) therein. Garnham et al. discloses the spool body including an annulus passageway (at 12) extending laterally through at least a portion of the spool body (20) for fluid communication between the tubing annulus and an annulus line (at 30). Garnham et al. discloses the tubing hanger adapted to support the production tubing therefrom, the tubing hanger having a tubing hanger production bore (8) extending axially therethrough for fluid communication between the production tubing string and a spool body lateral production passageway (24) through the spool body above the tubing hanger, and a tree cap (28)

positioned above the spool body production passageway for closing off flow through the spool body central bore.

As to claim 52, Garnham et al. discloses a workover flow path (at 30) extending at least partially through the spool body and fluidly connecting the central bore in the spool body above the tubing hanger (6) to the tubing annulus (at 9), and a workover valve (30) controlling fluid flow along the workover flow path.

As to claim 54, Garnham et al. discloses the production bore (8) in tubing hanger (6) has a substantially uniform diameter bore so as not to restrict fluid flow.

As to claim 56, Garnham et al. discloses the annulus passageway (12) extends vertically through a portion of the tubing hanger (6), and laterally outward to the spool body (20).

Claims 21, 23, 24, 49 and 51 are rejected under 35 U.S.C. 102(b) as being anticipated by Gould, U.S. 2,889,886.

Regarding claim 21, Gould discloses in figures 2 and 12 a horizontal spool tree assembly for controlling fluid flow through a production tubing string (15,14) within a well, the production tubing string defining a tubing annulus (between 11 and 12) surrounding the tubing string, and the tree assembly adapted for use with a workover string for fluid communication with the tree assembly. Gould discloses a spool body (A) defining a spool body central bore (21) for receiving a tubing hanger (C) therein. Gould discloses a spool body production passageway (24) above the tubing hanger extending laterally through the spool body to a production line (14), and an

annulus passageway (23;col. 4, lines 15-29) below the tubing hanger extending laterally through the spool body for fluid communication between the tubing annulus and an annulus line. Gould discloses the tubing hanger (C) sealed (E) to the spool body and adapted to support the production tubing (15,14) therefrom. Gould discloses the tubing hanger having a tubing hanger production bore (at 42) extending axially therethrough for fluid communication between the production tubing string (14) and the spool body production passageway (24)

As to claim 23, Gould discloses in figure 3 an annulus valve positioned on the spool body for controlling fluid flow along the annulus passageway (23).

As to claim 24, Gould discloses a first closure member (G) and a second closure member (63) each positioned in a tree cap (149) formed above the tubing hanger (C).

Regarding claim 49, Gould discloses in figures 2 and 12 a horizontal spool tree assembly for controlling fluid flow through a production tubing string (15,14) within a well, the production tubing string defining a tubing annulus (between 11 and 12) surrounding the tubing string, and the tree assembly adapted for use with a workover string for fluid communication with the tree assembly. Gould discloses a spool body (A) defining a spool body central bore (21) for receiving a tubing hanger (C) therein. Gould discloses the spool body including an annulus passageway (23;col. 4, lines 15-29) extending laterally through at least a portion of the spool body for fluid communication between the tubing annulus and an annulus line. Gould discloses the tubing hanger (C) adapted to support the production tubing (15,14) therefrom, the tubing hanger having a tubing hanger production bore extending axially therethrough for fluid communication between the production tubing string and a spool body lateral production passageway (24) through the.

spool body above the tubing hanger, and a tree cap (149) positioned above the spool body production passageway for closing off flow through the spool body central bore.

As to claim 51, Gould discloses first (G) and second (63) closure members each received within the vertical bore in the tree (149).

Claims 37-39 and 42 are rejected under 35 U.S.C. 102(b) as being anticipated by Kent et al., U.S. 6,357,529.

Regarding claim 37, Kent et al. discloses a horizontal spool tree assembly (10) for controlling fluid flow through a production tubing string (22) within a well, the production tubing string defining a tubing annulus surrounding the tubing string, the tree assembly adapted for use with a workover string for fluid communication with the tree assembly. Kent et al. discloses the a spool body (14,16,70) defining a spool body central bore for receiving a tubing hanger (20) therein, and a spool body production passageway (72) above the tubing hanger extending laterally through the spool body to a production line (76). Kent et al. discloses the tubing hanger sealed (via 18; col. 2, lines 57-63) to the spool body and adapted to support a production tubing therefrom. Kent et al. discloses the tubing hanger having a tubing hanger production bore (24) extending axially therethrough for fluid communication between the production tubing string and the spool body production passageway (72), and an annulus passageway (28) extending upward into the tubing hanger (20) and laterally outward through the tubing hanger and through the spool body (16,14,70) to an annulus line (26).

As to claim 38, Kent et al. discloses a workover flow path (78;80) exterior of the spool body and extending from the production line (76) external of the spool body to the annulus passageway (28).

As to claim 39, Kent et al. discloses a workover valve (80) positioned along the workover line (78) for controlling fluid flow during a workover operation.

As to claim 42, Kent et al. discloses a first closure member (50) and a second closure member (52) in a tree cap above the tubing hanger.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 21, 23, 25, 26, 49, 50, 53, 55 and 57 are rejected under 35 U.S.C. 102(e) as being anticipated by Deberry, U.S. 6,755,254.

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the

inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Regarding claim 21, Deberry discloses in figure 3C a horizontal spool tree assembly for controlling fluid flow through a production tubing string (22) within a well, the production tubing string defining a tubing annulus surrounding the tubing string, and the tree assembly adapted for use with a workover string for fluid communication with the tree assembly. Deberry discloses a spool body (14) defining a spool body central bore for receiving a tubing hanger (20) therein, a spool body production passageway (71) above the tubing hanger extending laterally through the spool body to a production line (86). Deberry discloses an annulus passageway (70) below the tubing hanger extending laterally through the spool body for fluid communication between the tubing annulus and an annulus line (82). Deberry discloses the tubing hanger sealed to the spool body and adapted to support the production tubing therefrom, the tubing hanger having a tubing hanger production bore (28) extending axially therethrough for fluid communication between the production tubing string and the spool body production passageway.

As to claim 23, Deberry discloses an annulus valve (76) positioned on the spool body for controlling fluid flow along the annulus passageway (70).

As to claim 25, Deberry discloses a production valve (42) on a block exterior of the spool body for controlling the fluid flow along from the spool body production passageway (71) to the production line (86).

As to claim 26, Deberry discloses a workover valve (32) positioned on the spool body for controlling the fluid flow along the workover flow path.

Regarding claim 49, Deberry discloses a horizontal spool tree assembly for controlling fluid flow though a production tubing string (22) within a well, the production tubing string defining an annulus surrounding the tubing string, and the tree assembly adapted for use with a workover string for fluid communication with the tree assembly. Deberry discloses a spool body (14) defining a spool body central bore for receiving a tubing hanger (20) therein, the spool body including an annulus passageway (70) extending laterally through at least a portion of the spool body for fluid communication between the tubing annulus and an annulus line (82). Deberry discloses the tubing hanger having a tubing hanger production bore (28) extending axially therethrough for fluid communication between the production tubing string (22) and a spool body lateral production passageway (71) through the spool body above the tubing hanger. Deberry discloses a tree cap (50) positioned above the spool body production passageway for closing off flow through the spool body central bore.

As to claim 50, Deberry discloses the tree cap (50) is positioned within the central bore in the spool body.

As to claim 53, Deberry discloses a production valve (40) on a block exterior of the spool body for controlling the fluid flow from the spool body lateral production passageway to the production line.

As to claim 55, Deberry discloses the annulus passageway (70) intersects the central bore in the spool body below the tubing hanger (20).

As to claim 57, Deberry discloses each of the tubing hanger production bore (28) and the spool body production passageway (71) being in communication with the spool body central bore between the tubing hanger and the tree cap (50).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gould, U.S. 2,889,886 in view of Deberry, U.S. 6,755,254.

As to claim 27, Gould discloses comprising a production line (24) and a annulus line (23) in the spool body (A) adapted to receive flow handling pipes or lines as needed (col. 4, lines 23-29). Gould does not disclose a workover flow path exterior of the spool body for fluid communication between the production line and the annulus line. Deberry teaches in figure 1A use of a workover flow path (84) exterior of the spool body (14) for fluid communication between the production line (86) and the annulus line (82) to establish a flushing path. It would have been obvious to one having ordinary skill in the art at the time of the invention to arrange for the annulus and production lines disclosed by Gould to have a workover path, as taught by Deberry to establish a flushing path or perform a flow test as circumstances require.

As to claim 28, Deberry teaches use of a workover valve (42) exterior of the spool body for controlling the fluid flow along the workover flow path (84).

As to claim 29, Deberry teaches use of a first production valve (40) for controlling fluid flow along the production line; a second production valve (38) for controlling fluid flow along the production line; a first annulus valve (76) for controlling fluid flow between the tubing annulus and the annulus line, a second annulus valve (72) for controlling fluid flow between the tubing annulus and the annulus line; and a workover flow path (84) is in fluid communication with the

production line (86) between the first production valve and the second production valve, and is in fluid communication with the annulus line (82) between the first annulus valve and the second annulus valve.

Allowable Subject Matter

Claims 30-36, 43-48 are allowed.

Claims 11, 13, 22, 40 and 41 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record does not disclose or suggest all the claimed subject matter including the workover flow path in fluid communication with the annulus passageway between the first and second valves.

The prior art of record does not disclose or suggest all the claimed subject matter including the work over valve positioned on the spool body.

The prior art of record does not disclose or suggest all the claimed subject matter including a workover flow path extending entirely within the spool body from the production passageway to the annulus passageway.

The prior art of record does not disclose or suggest all the claimed subject matter including a flow path in fluid communication with the annulus passageway between the first annulus valve and the second annulus valve.

The prior art of record does not disclose or suggest all the claimed subject matter including a flow path in fluid communication with the spool body central bore above the hanger downward through the tubing hanger, laterally outward through the hanger and into the spool body and laterally inward through the spool body to the annulus.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenn Thompson whose telephone number is 703 306-5760. The examiner can normally be reached on 7:00 am - 4:30 pm.

Please note the telephone number will change to 571 272-7037 on or about April 2005.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David J Bagnell can be reached on 703 308-2151. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

7 February 2005

Kenn Thompson
Primary Patent Examiner
Art Unit 3672